ABSTRACT

A method and system for encoding signaling information at a physical layer of a network protocol, for example, an Ethernet-based protocol such as Gigabit Ethernet (GE). On a first network device, the signaling information may be encoded and multiplexed with data encoded according to a first block coding scheme to produce a stream of data encoded according to the first block coding scheme. The signaling information may be encoded using bit sequences not defined for use by the block first block coding scheme. This stream of data then may be transmitted on a network medium to another network device, which then may extract the bit sequences encoding the signaling information from the stream of data and decode the bit sequences into the signaling information. For two devices exchanging data on a first channel, signaling information may be multiplexed within this first channel itself, rather than sent on a separate channel. Further, to exchange signaling information, the two devices do not have to implement a protocol or part of a protocol at a layer higher than the physical layer. As a result, the configuration of these two devices is simplified.